FIGs. 16, 17, 18, and 23 show a power-take-off system integrated on the tool. Cone 151 and brush 152 are rotatably supported and driven by the power of the tool for respective deburring and brushing of tubes. FIG. 18 shows that motor 33 suitably rotates miter gear 153 and pinion gear 154 which is rotatably centered on a shaft 156 and rotates spur gear 166. A housing interior pivotal bracket 157 is also on the shaft 156, and it can pivot left and right about shaft 156, as viewed in FIG. 23, and it rotatably carries idler spur gear 158 which drives and is on a rotatable mounting shaft 159 on bracket 157. As seen in FIG. 23, the interior of shaft 159 has a female hex shape 160 which is respectively exposed to both sides of the housing exterior in the FIG. 23 pivoted position, and is axially aligned with two housing side openings, such as opening 165 in FIG. 18, for reception of mating hex shafts such as that which are on the cone 151 and on the brush 152 for respective and simultaneous rotation drive connections. For acceptable clarity in the drawing, the gears 166 and 158 are shown only in dotted lines as they are the gears that are added to the previous showings. Gear 166 is always in driving contact with idler gear 158.

A lever 161 is pivotally mounted on a housing post 162 to be on the exterior of the housing 10, and it is shown to have a square shape 163 at the housing interior and on the same plane as that of the bracket 157. The square shape presents a corner, as shown, to the edge 164 of the bracket 157 to thereby pivot the bracket 157 leftward, as in the shown pivoted position. So pivoting of the lever 161 will pivot the bracket 157 and thus shift the idler 158 between alternate engagement with the gear 166 and command drive gear 44. Different driven accessories, such as cone 151 and brush 152, can be mounted in the openings 165, as desired.

A compression spring 169 is suitably effective on the bracket 157 to yielding urge the idler 158 into engagement with the gear 44. Upon shifting the lever 161 to its shown

position, that will interrupt the cutting drive. After the cutting is done and the tool is placed in the reverse mode, as explained, to avoid any damage to the motor after the cutting head is abruptly stopped, the idler gear 158 will pop out of tooth engagement and that moves bracket 157 back against the spring 169. That replaces an electronic monitoring circuit disclosed earlier.

On the cutting head stack of Fig. 1, the several gears 16 and 17 and the plate 18 are all held in one steady stack by having sliding circular radial shoulders 171 and 172, in FIGs. 11 and 12, in snug sliding contact with each other, and by having shoulders 173 and 174, in FIGs. 12 and 13, in snug sliding contact. The gears 16 and 17 also sequentially contact each other axially in their stacked relationship, as indicated. So the cutting head is aligned radially, and those several pieces abut axially, all for close guidance of the several parts relative to each other in a unitized stack.

While specific embodiments are shown and described, it will be apparent to one skilled that changes can be made therein, and the scope of this invention should be determined by the appended claims.

position, that will interrupt the cutting drive. After the cutting is done and the tool is placed in the reverse mode, as explained, to avoid any damage to the motor after the cutting head is abruptly stopped, the idler gear 158 will pop out of tooth engagement and that moves bracket 157 back against the spring [167] 169. That replaces an electronic monitoring circuit disclosed earlier.

On the cutting head stack of [FIGS. 1 and 11, and 13,] Fig. 1, the several gears 16 and 17 and the plate 18 are all held in one steady stack by [have] having sliding circular radial shoulders 171 and 172, in FIGs. 11 and 12, in snug sliding contact with each other, and by having shoulders 173 and 174, in FIGs. 12 and 13, in snug sliding contact. [They] The gears 16 and 17 also sequentially contact each other axially in their stacked relationship, as indicated. So the cutting head is aligned radially, and those several pieces abut axially, all for close guidance of the several parts relative to each other in a unitized stack.

While specific embodiments are shown and described, it will be apparent to one skilled that changes can be made therein, and the scope of this invention should be determined by the appended claims.